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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,377	01/18/2005	Thomas Kornek	WAS0678PUSA	2132

22045 7590 07/18/2006

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EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/521,377		KORNEK ET AL	
	Examiner		Art Unit	
	Chukwuma O. Nwaonicha		1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 9-22 are pending in the application.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is indefinite because there to many substituents attached to double bond of the carbon of formula III. Correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonomura et al., {US 6,359,161}.

Applicants claim a process of continuous preparation of organo silane by reacting silane with an alkene in the presence of an iridium catalyst; wherein all the variables are as defined in the claims. The process is carried out at a temperature of about 30°C to about 200°C and the reaction pressure is 0.11 – 50.0 Mpa. The process employs a co-catalyst with a concentration of 1×10^{-6} to 1 mole %, based on the silane component.

Determination of the scope and content of the prior art (M.P.E.P. §2141.01)

Tonomura et al. teach a process for preparing halopropyldimethylchlorosilane by reacting dimethylchlorosilane with an allyl halide in the presence of an iridium catalyst. The reaction is effected in the presence of an internal olefin compound, typically, 1,5-cyclooctadiene. The internal olefin compound suppresses deactivation of the iridium catalyst during reaction. Using a smaller amount of the iridium catalyst, the process produces the halopropyldimethylchlorosilane in high yields. The reaction was conducted at about 0°C to about 200°C and catalyst concentration of 0.000001 to 0.1 mole. The co-catalyst employed is 0.004 mole.

Ascertainment of the difference between the prior art and the claims (M.P.E.P..**§2141.02)**

Tonomura et al. process of preparation of silane by reacting silane with an alkene in the presence of an iridium catalyst differs from the instantly claimed process in that Tonomura et al. process is not a continuous process while applicants claim a process that is continuous.

Finding of prima facie obviousness—rational and motivation (M.P.E.P.. §2142-**2143)**

The instantly claimed process of preparation of silane by reacting silane with an alkene in the presence of an iridium catalyst would have been suggested to one of ordinary skill because one of ordinary skill wishing to obtain organo silane is taught to employ the processes of Tonomura et al.

One of ordinary skill in the art would have a reasonable expectation of success in practicing the instant invention by varying the process conditions (batch/continuous, concentration of the catalyst, reactants, temperature and pressure) from the teaching of Tonomura et al. to arrive at the instantly claimed method for making organo silane by reacting silane with an alkene in the presence of an iridium catalyst. Said person would have been motivated to practice the teaching of the reference cited because it demonstrate that organo silane are useful industrial raw materials. The Examiner notes that variation the reaction conditions, for example, batch/continuous, concentration of the reactants, catalyst, temperature and pressure in a chemical reaction is a well-known chemical practice to optimize the process efficiency of the system and does not

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constitute a patentable distinction. Therefore, the instantly claimed invention would therefore have been obvious to one of ordinary skill in the art.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 9-22 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,388,119.

The presently claimed process for making organo silane is disclosed in US 6,388,119. See claims 1-18 of the US 6,388,119.

Applicants claim a process of continuous preparation of organo silane by reacting silane with an alkene in the presence of an iridium catalyst; wherein all the variables are as defined in the claims while US 6,388,119 teaches claim a process of preparation of organo silane by reacting silane with an alkene in the presence of an iridium catalyst. See claims 1-18 of US 6,388,119.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims overlaps substantially with the scope

of claims 1-18 in the US 6,388,119, and the process taught in US 6,388,119 encompasses the process in the presently claim invention. They differ in that the claimed process is continuous while US 6,388,119 is silent about this technique. This difference is not a patentable distinction because US 6,388,119 teaches the elements of the claimed invention with sufficient guidance, particularity, and with a reasonable expectation of success, that the invention would be *prima facie* obvious to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman k. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chukwuma O. Nwaonicha, Ph.D.

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Patent Examiner

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THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
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